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ented; and although in no one instance can he recover damages, still it is a very great annoyance to be thus worried and tormented. Instead of making apologies, the editors and proprietors of literary works should set their faces as a flint against such a system; and by holding it up to public reprobation, preserve for the periodical press the liberty heretofore enjoyed of fairly discussing new-fangled theories and opinions, brought forward by authors of more zeal than judgment, and who carry more sail than ballast. We have always regarded fair discussion as the best friend of real merit, and the best means of detecting literary imposture, and checking literary impertinence. At all events, whatever may come relative to the present proceedings, we have the satisfaction of reflecting that *we* have done our duty; and shall prove to Mr. O'Brien in our review of his forthcoming work, "the Pyramids of Egypt," "the uses of which," in his advertisement, he presumptuously says "are for the first time revealed," that if he thinks by threatening us with a prosecution, to prevent our speaking of it as it may deserve, he is greatly mistaken. Please Providence, as soon as it comes to light, we shall do it *justly*—and faithfully award the praise or the censure the production may, in our opinion, fairly merit.

SIMPLE SCIENCE.

MAGNETISM.

As natural philosophy is a science in its own nature entertaining and delightful, and conducive in many instances to the ease and convenience of life, it is not to be wondered at that there have been men in all ages, who have laid themselves out for the improvement and cultivation of it. But it is a matter of no small surprise, to think how inconsiderable a progress the knowledge of nature had made in former ages, when compared with the vast improvements it has received from the numberless discoveries of latter times; inasmuch, that some of the branches of natural philosophy, which at this day are almost complete in all their parts, were utterly unknown before the last century. If we look into the reason of this, we shall find it to be chiefly owing to the wrong measures that were taken by philosophers of former ages in their pursuits after natural knowledge; for they, disregarding experiments, (the only sure foundation whereon to build a rational philosophy, busied themselves in framing hypotheses for the solution of natural appearances; which, as they were creatures of the brain, without any foundation in nature, were, generally speaking, so lame and defective, as, in many cases, not to answer those very phenomena for whose sakes they were contrived. Whereas the philosophers of later times, laying aside those false lights, as being of no other use than to misguide the understanding in its searches into nature, betook themselves to experiments and observations, and from them collected the general powers and laws of nature; which, with a proper application, and the assistance of mathematical learning, enabled them to account for most of the properties and operations of bodies, and to solve many difficulties in the natural appearances, which were utterly inexplicable on the foot of hypotheses, and much more will yet be discovered by the philosophers of the present day.

The phenomena of magnetism, like those of electricity, depend on a cause so little subject to the investigation of our senses, that any regular and well supported theory can as yet scarcely be expected. The subject is still more difficult than that of electricity; for in the latter, the fluid is made visible, and otherwise perceptible to our senses; but no experiment could ever render the cause of magnetism perceptible otherwise than by its effects. The idea of its being occasioned by a fluid entering in at one pole and passing out at another, has become pretty general; but the late discoveries in electricity have naturally suggested another theory—which is, that the magnetic phenomena may be occasioned by a fluid analogous to the electric, or perhaps the very same; and with a view to investigate this theory, the phenomena of magnetism and electricity have been accurately compared with each other, and the analogy between them carefully marked. This

analogy is found to consist principally in the following particulars:

1st.—Electricity is of two kinds, positive and negative, each of which repels its own kind and attracts the opposite. In magnetics, the north and south pole do the same—each being repulsive of its own kind, and attracting the opposite.

2d.—In electricity, whenever a body in its natural state is brought near an electrified one, it becomes itself electrified, and possessed of the contrary electricity, after which an attraction takes place. In like manner, when a piece of iron or steel is brought within the influence of a magnet, it becomes itself possessed of a magnetism contrary to that which the magnet possesses, and is of course attracted.

3d.—One sort of electricity cannot be produced without the other: neither is it possible to produce one kind of magnetism without the other also.

4th.—The electric power may be retained by certain substances, as amber, glass, &c.; but easily pervades others, which are therefore called conductors. Magnetism has a similar conductor in soft iron; for by means of it, the virtue may be extended farther than can be done without it—at the same time that the iron itself loses all magnetic power the moment it is separated from the magnet. Hardened iron, cast iron, and steel, perform a part analogous to electrics.

5th.—The electric virtue exerts itself most powerfully on points, which are found to carry it off or receive it in vast quantities. In like manner, a magnet will hold a piece of iron more powerfully by a corner or blunt point than by a flat surface. On sharp points, indeed, the magnet has but little hold, by reason of the deficiency of surface.

6th.—From experiments, it appears possible to superinduce the negative and positive electricities upon one another; and in magnetics it is possible to do the same.

These are the most remarkable particulars in which magnetism and electricity are made to agree; but the differences between them are no less remarkable. The magnetic power affects none of our senses, and, most perceptible at least, attracts only iron; whilst electricity attracts and repels bodies of every kind indiscriminately. The electric virtue presides on the surface, but that of the magnet pervades the whole substance. A magnet loses nothing of its power by communicating its virtue to other bodies, but electricity always does. And, lastly, the magnetic virtue is permanent, whereas that of electricity is exceedingly perishable, and capable of being dissipated. Notwithstanding these disagreements, however, the analogies between magnetism and electricity are so great, that the hypothesis of a magnetic as well as of an electric fluid has now gained general credit.

ANIMAL MAGNETISM.

Is a sympathy lately supposed by some persons to exist between the magnet and the human body, by means of which the former became capable of curing many diseases in an unknown way, something resembling the performances of the old magicians. It appears to have originated in 1774, from a German philosopher named Father Held, who greatly recommended the use of the magnet in medicine. M. Mesmer of the same country became the direct founder of the system. He went to Paris in the year 1778, where his patients increased so rapidly, that he was obliged to take in pupils to assist him. The new system now gained ground daily, and soon became so fashionable that the jealousy of the faculty was awakened; and an application concerning it was made to Government, in consequence of which a committee was appointed to inquire into the matter. This was a thunder-stroke to the supporters of the new doctrine. Mesmer himself refused to have any communication with the committee; but his most celebrated pupil, Deston, was less scrupulous, and explained the principles of this art in the following manner:

1st.—Animal magnetism is an universal fluid, constituting an actual plenum in nature, and the medium of all mutual influence between the celestial bodies, and between the earth and animal bodies.